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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,012	01/21/2005	Yasuo Shinomiya	12480-000088/US	2053
30593	7590	05/29/2007	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C.			EWALD, MARIA VERONICA	
P.O. BOX 8910			ART UNIT	PAPER NUMBER
RESTON, VA 20195			1722	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/522,012	SHINOMIYA ET AL.
	Examiner	Art Unit
	Maria Veronica D. Ewald	1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 13 March 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-9 is/are rejected.
- 7) Claim(s) 10 and 11 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 January 2005 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/4/07.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application
- 6) Other: _____.

DETAILED ACTION

Allowable Subject Matter

13. Claims 10 – 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: Prior art, either alone or in combination, fails to teach a rolled cone manufacturing apparatus wherein each of the supporting means is a link mechanism including a toggle mechanism, said link mechanism serving as opening and closing means, locking means, and a guiding member for guiding a material sheet into the concave half and wherein the supporting means includes, provided that a part where the loop of the supporting means is cut off is referred to as a split part, a positioning and fixing member for positioning and fixing the split part in place, when the supporting means is closed, said positioning and fixing member serving as a guiding member when the material sheet is brought into the concave half.

Claim Rejections - 35 USC § 102

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1722

Claims 1 – 3, 5 – 6 and 8 – 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Haas, Sr., et al. (U.S. 4,624,855). Haas, Sr., et al. teach a rolled cone manufacturing apparatus, comprising: a concave half (item 3 – figure 2) and a convex half (item 8 – figure 2) which form a cavity inside when combined with each other (figure 2), a cross section of the cavity having a circular shape in a direction orthogonal to axes of the concave half and the convex half; and supporting means which rotatably supports the convex half, on condition that the axis of the concave half is aligned with the axis of the convex half (item 9 – figure 2), said supporting means being openable and closable (column 4, lines 67 – 68; column 5, lines 1 – 20), and pushing on at least three points (item 12 – figure 2; item 12 – figure 5; column 5, lines 5 – 20), an outer periphery of a part of the convex half protruding from the concave half onto the axis, when said supporting means is closed (figure 2; column 5, lines 1 – 20); wherein the supporting means includes (i) opening and closing means for, when opened, releasing support of the axis of the convex half, while when closed, supporting the axis, and (ii) locking means for keeping the opening and closing means closed (column 5, lines 5 – 35); wherein positions of supporting points of the supporting means are determined in such a manner as to form either (I) a polygon encompassing the axis of the convex half, by connecting points where the supporting means contacts an outer periphery of a part of the convex half protruding from the concave half (figure 5), or (II) when the supporting means functions as a sliding bearing, either a circle around the axis or a closed curved figured by connecting arcs centering on the axis (column 5, lines 20 – 25, 40 – 46; figures 2 and 5).

With respect to claims 5 – 6, the reference further teaches that the convex half is rotatable when the supporting means is closed (column 5, lines 15 – 35), while the convex half is movable toward the axis when the supporting means is open (column 5, lines 1 – 20); wherein the concave half has an opening part through which the convex half is fitted in, said supporting means partly protruding inwardly of the opening part when said supporting means is closed (figure 2).

With respect to claims 8 – 9, the reference also teaches that wherein, when cross sections of the concave half and the convex half are circular in a direction orthogonal to the axes of the concave half and the convex half, the concave half and the convex half are conical-shaped, truncated-cone shaped, or cylinder-shaped (figure 2); wherein the supporting means is a loop-shaped member which is openable and closable (figure 2).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas, Sr., et al. in view of Haas, Sen., et al. (U.S. 6,227,103). Haas, Sr., et al. (U.S. 4,624,855) teach the characteristics previously described but do not teach that there are rolling objects provided on respective supporting points of the supporting means.

In a method to form cones, Haas, Sen., et al. (U.S. 6,227,103) teach that there is a support frame on which a rotatable shaft is mounted (item 13 – figure 5). The shaft supports the convex half of a pair of molds used for molding wafers into ice cream cones. The shaft is supported and driven by means of a drive wheel and is rotatably supported by two bearings (items 11 and 12 – figure 2). The bearings facilitate the rotation of the shaft during roll-up of a cone.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to configure the apparatus of Haas, Sr., et al. (U.S. 4,624,855) with the bearings of Haas, Sen., et al. (U.S. 6,227,103) for the purpose of allowing the rotation of the convex half against the bearing surface to ensure a smooth rotation of the convex half, reduce friction and thereby, produce quality cones.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haas, Sr., et al. in view of Taylor (U.S. 1,720,304). Haas, Sr., et al. teach the characteristics previously described but do not teach that there is a slit-type inlet connected to the cavity formed at the side of the concave half and a guiding member covering a surrounding of the opening part provided around the inlet and the opening part.

In a method to form rolled ice cream cones, Taylor teaches the use of a pair of molds – a convex half and a concave half. The convex half is supported by a shaft and inserted into the concave half to form a cavity. Warm and pliable wafers are introduced into the cavity via a slot (item 6b – figure 1) and guided by a flange (item 6c – figure 1) and subsequently rolled into the cone shape as the shaft rotates.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the Applicant's invention to modify the apparatus of Haas, Sr., et al. with the slit and flange of Taylor for the purpose of introducing the wafer into the cavity for rolling and for facilitating the guiding of the wafer into the cavity.

Response to Arguments

16. Applicant's arguments filed March 13, 2007 have been fully considered but they are not persuasive. Applicant has argued that the fingers (item 12 – figures 2 and 4 – 5) of Haas, Sr, et al. do not push the winding core (item 8 – figures 2 and 4 – 5) and are used to plastically deform the rim of the wafer cone. Though the fingers are used to plastically deform the rim of the cone, this only describes the function of the apparatus, but does not distinguish the prior art structurally from Applicant's apparatus. While features of an apparatus may be recited either structurally or functionally, claims directed to >an< apparatus must be distinguished from the prior art in terms of structure rather than function (MPEP 2114). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987)

Furthermore, Examiner disagrees with the statement that the fingers do not in any way push on the winding core. Because in the closed position, the fingers are extended into the slots (item 30 – figures 4 and 5), as the fingers are extended, at some

point, the fingers contact or push on the core itself – the degree to which it pushes or exerts pressure is not a factor. In addition, even in the closed position, when a cone is introduced and the fingers are extended to deform the rim, the cone is shaped and compressed between the outer and inner molds. Thus, there is some pressure exerted by the fingers on the core, since the fingers push the cone itself against the core; though not directly, there is some amount of pressure exerted on the core by the fingers, even though such contact is not direct contact between the fingers and the core.

With respect to Applicant's arguments that the supporting means is not openable and closable, Examiner disagrees. Applicant has argued that the backing disk is not openable and closable. Though this may be true, Examiner does not identify the backing disk as the supporting means. The fingers, in the open position, are retracted and vertical and in the closed position, are extended, angled to fit in the corresponding slots and locked in position. Thus, the structural components of claim 2 are anticipated by the apparatus of Haas, Sr., et al.

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Veronica D. Ewald whose telephone number is 571-272-8519. The examiner can normally be reached on M-F, 8 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVE

ROBERT DAVIS
PRIMARY EXAMINER
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5/24/07